

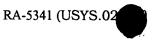
WHAT IS CLAIMED IS:

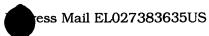
1 1		A computer-implement	ed method for	persisting	object-orie	nted data objects
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- 2 comprising:
- defining in a source program a first structure type for storage of one or more data
- 4 values;
- defining in the source program a plurality of objects of the structure type;
- 6 initializing the objects with selected data values in the source program;
- defining in the source program a first class that derives from the structure type,
- 8 the class including a static method configured to convert an object of the structure type to
- 9 an instance of the class in response to a reference to the method; and
- allocating memory for the objects and assigning the data values to the objects at
- 11 compile-time.
- 1 2. The method of claim 1, further comprising:
- defining in the source program one or more traits classes, each traits class
- 3 including first, second, and third public type definitions, the first type definition
- 4 identifying a class described by the traits class, the second type definition identifying a
- 5 base structure for the class described by the traits class, and the third type definition for
- 6 identification of a structure for input to the static method of the class described by the
- 7 traits class, for reference to the class described by the traits class, and for assignment of
- 8 data to the class described by the traits class; and
- 9 defining in the source program a second class, the second class including an
- attribute of the third type definition of a traits class that describes the first class.
 - 3. The method of claim 2, further comprising:
- defining in the source program a collection class that includes objects of the first
- 3 class; and

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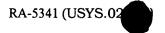
- 4 instantiating objects of the first class in an object of the collection class in the
- 5 source program.





- 1 4. The method of claim 3, further comprising defining in the source program a
- 2 collection iterator configured to traverse the objects of the first class in the collection
- 3 object.
- . 1 5. The method of claim 4, further comprising:
 - defining in the source program a second structure type that includes one or more 2
 - 3 void pointers and an input aggregate structure; and
 - 4 defining one or more of the traits classes with the second structure type used as
 - 5 the third public type definition.
 - 1 6. The method of claim 5, further comprising:
 - defining a template class that includes an initialize method that calls a language-2
 - 3 provided function that constructs an object of a specified type;
 - 4 defining in one of the traits classes a member attribute that is a pointer to the
 - 5 initialize method.
 - 1 7. The method of claim 4, further comprising:
 - 2 defining in the source program a pre-processor macro that encapsulates the
 - 3 collection class; and
 - 4 instantiating objects of the first class in an object of the collection class in the
 - 5 source program by reference to the pre-processor macro.
 - 1 8. The method of claim 7, further comprising defining in the source program a pre-
 - 2 processor macro that forward references the collection class.
 - The method of claim 7, further comprising defining in the source program a pre-9. 1
 - processor macro that references an element of a first collection in an entry of a second 2
 - 3 collection.
 - The method of claim 7, further comprising defining in the source program a pre-1 10.
 - processor macro that initializes a collection having no entries. 2

- 1 11. The method of claim 7, further comprising:
- defining in the source program a second structure type that includes one or more
- 3 void pointers and an input aggregate structure; and
- 4 defining one or more of the traits classes with the second structure type used as
- 5 the third public type definition.
- 1 12. The method of claim 11, further comprising:
- defining a template class that includes an initialize method that calls a language-
- 3 provided function that constructs an object of a specified type;
- defining in one of the traits classes a member attribute that is a pointer to the
- 5 initialize method.
- 1 13. The method of claim 4, further comprising defining an initializer class that
- 2 iterates through objects in the collection class invoking a default constructor for an input
- 3 class type.
- 1 14. The method of claim 2, further comprising:
- defining in the source program a second structure type that includes one or more
- 3 void pointers and an input aggregate structure; and
- defining one or more of the traits classes with the second structure type used as
- 5 the third public type definition.
- 1 15. The method of claim 10, further comprising:
- defining a template class that includes an initialize method that calls a language-
- 3 provided function that constructs an object of a specified type;
- defining in one of the traits classes a member attribute that is a pointer to the
- 5 initialize method.



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1	16. An apparatus for persisting object-oriented data objects	, comprising:
2	means for defining in a source program a first structure	type for storage of one or
3	more data values;	
4	means for defining in the source program a plurality of	objects of the structure
5	type;	
6	means for initializing the objects with selected data value	ues in the source program;
7	means for defining in the source program a first class the	nat derives from the
8	structure type, the class including a static method configured to	convert an object of the
9.	structure type to an instance of the class in response to a referen	nce to the method; and
10	means for allocating memory for the objects and assign	ing the data values to the
11	objects at compile-time.	